

1 I claim:

2 1. A system intended to remove noxious odors resulting from disposal of human waste
3 into the porcelain bowl of an ordinary flush toilet while seated upon its hinged seat spaced
4 apart from and in contact with the top surface of said porcelain bowl and mounted to the rear
5 of said top surface with a pair of mounting bolts; said system comprising:

6 at least one manifold, at least one hood, conduit, and at least one blower;

7 each said manifold possessing a manifold inlet, a manifold plenum, and a manifold
8 extension with a manifold outlet;

9 said manifold inlet possessing dimensions sufficiently diminutive to fit the same in
10 the space: between the hinged seat and the top surface of the porcelain bowl of an ordinary
11 flush toilet and between the pair of mounting bolts mounting said hinged seat to the rear of
12 the top surface of said porcelain bowl;

13 said manifold plenum possessing communication with said manifold inlet and said
14 manifold extension facilitating air flow through said manifold inlet and then through said
15 manifold plenum and thence through said manifold extension with a negative pressure
16 differential with respect to ambient pressure supplied to said manifold extension;

17 said manifold extension being adapted for connection of said conduit to said manifold
18 outlet;

19 each said blower being remotely located from said manifold and connected with said
20 conduit such that operation of said blower effects the supply of a negative pressure
21 differential upon said manifold inlet with said conduit connected to said manifold extension;

22 each said manifold further possessing two lateral wings each possessing one slot
23 spaced apart from each other and possessing dimensions enabling the mounting bolts of an
24 ordinary flush toilet to be passed therethrough in location of said manifold;

25 each said hood possessing a medial section and two lateral wings each possessing one

1 slot spaced apart from each other and possessing dimensions enabling the mounting bolts of
2 an ordinary flush toilet to be passed therethrough in location of said hood;

3 said medial section of said hood possessing a curved fore edge and a straight rear edge
4 spaced apart from each other a distance sufficient to locate said curved fore edge in an
5 overhang of the rear of the cavity of the porcelain bowl of an ordinary flush toilet and said
6 straight rear edge in contact with said manifold inlet when both said manifold inlet and said
7 hood are disposed upon the rear of the top surface of the porcelain bowl with the mounting
8 bolts for the hinged seat passing through said slots through said wings of said hood and said
9 wings of said manifold;

10 whereby operation of at least one said blower with said conduit connected to at least
11 one said manifold extension effects a negative pressure differential upon said manifold inlet
12 and air borne odors associated with disposal of human waste into the porcelain bowl of a
13 flush toilet are removed with the flow of air under said medial section of said hood into said
14 manifold inlet, through said manifold plenum, manifold extension, and conduit.

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16 2. The system of claim 1 wherein said manifold inlet possesses at least one vertical vane
17 facilitating laminar airflow therethrough.

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19 3. The system of claim 1 wherein said manifold plenum possesses a rounded top
20 facilitating laminar airflow therethrough.

21
22 4. The system of claim 1 wherein said slots through said wings of said manifold are
23 open.

24
25 5. The system of claim 1 wherein said slots through said wings of said hood are closed.

1 **6.** The system of claim 1 wherein said manifold extension possesses a sensor port
2 through which an airflow velocity probe may be inserted to determine the volume rate of air
3 flow therethrough.

4
5 **7.** The system of claim 1 including an adapter for conduit of different sizes.
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7 **8.** The system of claim 7 wherein said different sizes of conduit are comprised of
8 schedule 40 PVC piping and three inch diameter metal ducting.
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10 **9.** The system of claim 1 wherein said manifold extension possesses annular barbs
11 facilitating the connection of flexible hose thereto.
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13 **10.** The system of claim 1 possessing a hose connection permitting quick disconnection
14 of the flexible hose to the manifold outlet.
15

16 **11.** The system of claim 10 wherein said hose connection and said manifold outlet each
17 possess a pair of flanges facilitating fastening of said hose termination to said manifold
18 outlet.
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20 **12.** The system of claim 11 with a resilient gasket disposed between said hose termination
21 and said manifold outlet to ensure an air tight seal.
22

23 **13.** The system of claim 1 wherein a vent in a room in which at least one said flush toilet
24 is located is connected to said conduit.
25

1 **14.** The system of claim 1 wherein operation of said blower remote from said manifold
2 is controlled by a light switch located in a room in which at least one said flush toilet is
3 located.

4
5 **15.** The system of claim 14 wherein operation of said blower is controlled by said light
6 switch using a relay connected by wiring to an electrical power supply.

7
8 **16.** The system of claim 15 wherein operation of said blower is controlled by said light
9 switch using a relay connected by wiring to an electrical power supply and a printed circuit
10 board facilitating control by a plurality of light switches.

11
12 **17.** The system of claim 1 wherein plastic piping possessing an outer diameter of no more
13 than two inches is at least partly utilized for said conduit.

14
15 **18.** The system of claim 17 having said plastic piping possessing an outer diameter of no
16 more than two inches run as conduit within the frame of a wall by hanging a length of said
17 conduit from an aperture cut through a frame sill.

18
19 **19.** The system of claim 18 wherein said length of conduit is hung from a hanger
20 possessing a shoulder larger than said aperture cut through a frame sill and at least one
21 smaller end passable through said aperture.

22
23 **20.** The system of claim 19 wherein at least one said smaller end passable through said
24 aperture of said hanger comprises a female connector end.

1 **21.** The system of claim 1 having one said blower disposed within a blower housing
2 possessing one exhaust port and at least one inlet port connectible to conduit.

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4 **22.** The system of claim 21 wherein said blower housing is constructed of sheet metal.

5
6 **23.** The system of claim 21 wherein said blower housing has a regulator permitting
7 variable closure of an orifice through a wall of said blower housing.

8
9 **24.** The system of claim 22 wherein said regulator comprises a door with a handle
10 permitting manually variable closure of said orifice.

11
12 **25.** The system of claim 21 wherein said exhaust outlet of said blower housing is round.

13
14 **26.** The system of claim 25 wherein said rectangular exhaust outlet of said blower housing
15 possesses an exterior sleeve facilitating attachment of conduit with said exhaust outlet.

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17 **27.** The system of claim 21 wherein said exhaust outlet of said blower housing is
18 rectangular.

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20 **28.** The system of claim 27 wherein said rectangular exhaust outlet of said blower housing
21 possesses an exterior sleeve facilitating attachment of conduit with said exhaust outlet.

22
23 **29.** The system of claim 21 wherein said blower housing possesses more than one said
24 inlet port each connectible to conduit enabling the delivery of a negative pressure differential
25 to a plurality of manifold inlets each located upon one of a plurality of ordinary flush toilets.

1 **30.** The system of claim **29** wherein at least one said inlet port possesses an external
2 sleeve facilitating connection of an end of round metal conduit thereto.

3
4 **31.** The system of claim **30** wherein said external sleeve possesses an annular flange with
5 a fixed pattern of bolt holes.

6
7 **32.** The system of claim **31** including a reduction plate with a fixed pattern of bolt holes
8 matching said fixed pattern of bolt holes in said annular flange of said external sleeve and
9 a central aperture facilitating connection of the end of a length of plastic piping possessing
10 a diameter of no more than two inches with the inlet port.

11
12 **33.** The system of claim **32** wherein said reduction plate possesses an external sleeve
13 about said central aperture facilitating connection of the end of a length of plastic piping
14 possessing a diameter of no more than two inches with the inlet port.